## Service Manual

**TOP NEXT** 

ORDER NO.HPD0011C18C1

## Service Manual

#### MASSAGE LOUNGER

• EP790-C1



#### **SPECIFICATIONS**

Power source : 120V AC, 60Hz

Power consumption : 230W

Kneading speed : Approx. 28 times/min.

Tapping speed : Approx. 500 times/min.(per side)
Rolling massage speed : Approx. 1 cycle every 33 sec.

Massaging width : Shoulder/lower back section : Approx. 75mm

Back rolling width/tapping width : Narrow : Approx. 85 mm/: Wide : Approx. 110 mm

Massage heads up/down travel : Approx. 600 mm

Regional back rolling : Automatic repetition within approx. 120mm range

Intensity adjustment : Adjusts massage head protrusion steplessly within approx. 45 mm range

Shoulder position adjustment : 7 steps

Automatic shut-off : Approx. 15 min.

Leg massager - vibration : Approx. 3200 cycles/min./ Shut-off timer : Approx. 30 min.

Dimensions (H x W x D) •Not reclined and leg rest retracted : 1,050 x 755 x 1,050 mm/ •Reclined and leg rest extended : 620 x 755 x 1,750 mm

Reclining angle : Approx. 127° to 170°

Weight : 56 kg

Accessories : Back cushion, headrest

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#### **⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

## **Panasonic**<sup>®</sup>

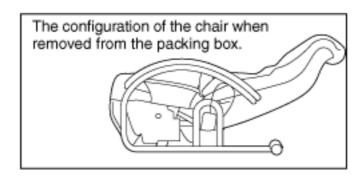
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TOP NEXT

## 1.1 When Chair Arrives:

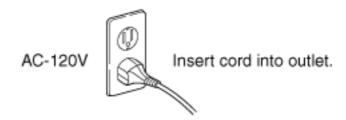
### **TOP PREVIOUS NEXT**

When shipped from the factory, for efficient transport, the chair is packaged in the configuration shown in the drawing below. In this configuration, normal reclining motion is not possible. Therefore, upon arrival of the chair, always follow the following steps to initialize operating settings.

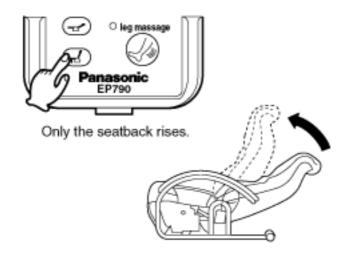


\*Check that the power switch is [On] (found at the back of the hinge cover).

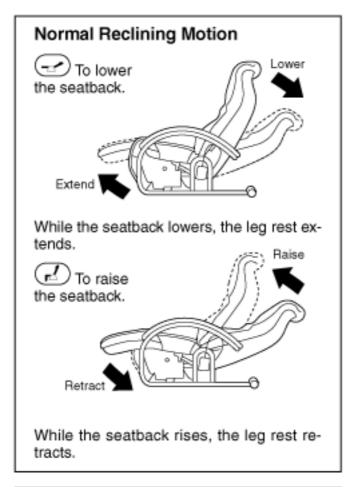
## (1)Plug-In

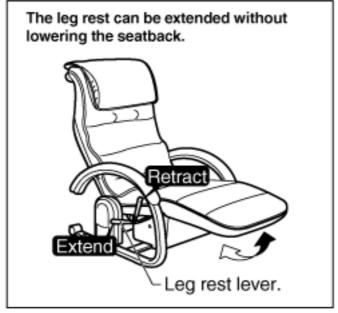


(2) Push continuously the reclining button of the operation panel to raise the seatback.



(3) Continue the process until the seatback movement comes to a stop (a clink sound should be audible)./•The reclining mechanism is set.





## 1 Installation

TOP PREVIOUS NEXT

1.1 When Chair Arrives:

1.2 Installation Position:

1.3 Returning Chair to Packaged Configuration

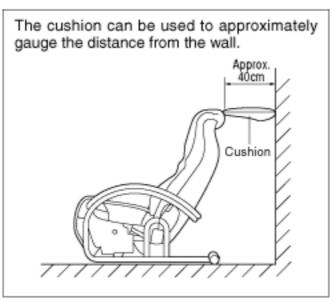


## 1.2 Installation Position:

## TOP PREVIOUS NEXT

To assure that the chair has enough space to recline to the rear, please install it at least 40cm from the wall.





•(a)

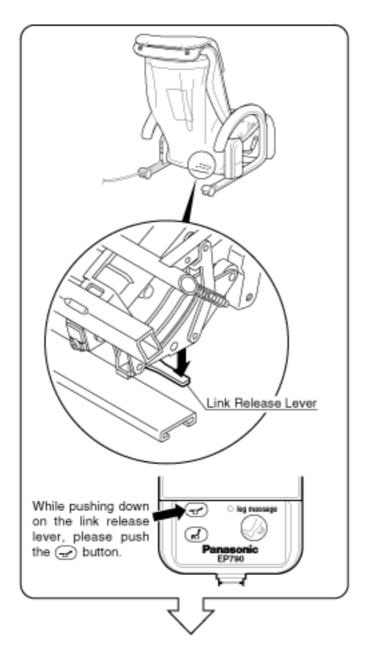
## 1.3 Returning Chair to Packaged Configuration

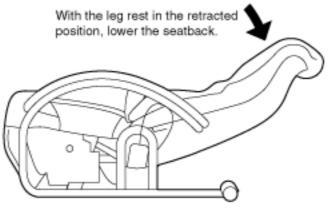
### **TOP PREVIOUS NEXT**

When shipped from the factory, for efficient transport, the chair is packaged in the configuration shown in the figure on page 2.

After competing the initial operating settings of page 2, if the chair is to be returned to the packaged configuration, please follow the following instructions.

- (1) Insert the plug into the outlet, and check that the power switch is [On].
- (2) While pushing down on the link release lever, please push (continuously) the
- button of the operation panel. After checking that the leg rest has not extended, remove your hand from the link release lever.
- \* When wanting to use the chair once again, please follow the directions on page 2 for initializing operating settings.





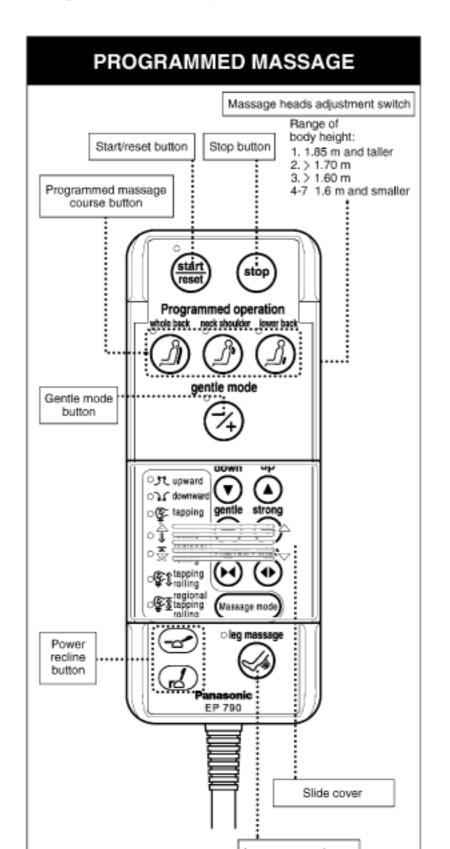
## 2 Hand control functions

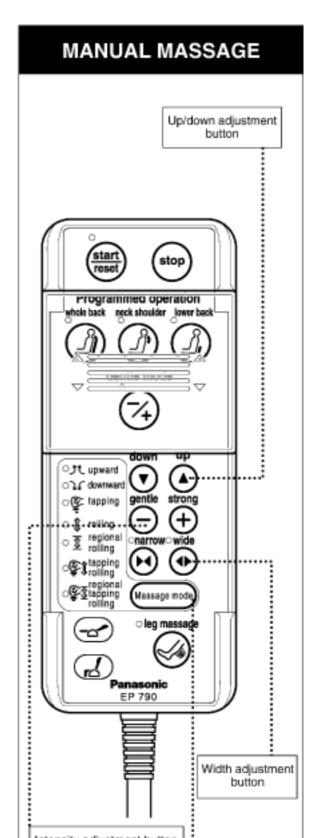
## **TOP PREVIOUS NEXT**

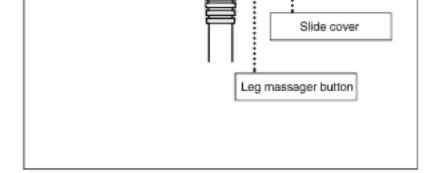
#### **CONTROLLER**

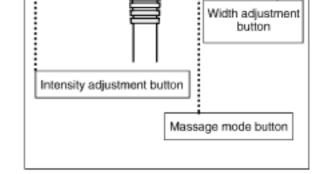
Cover closed: Programmed course massage

Cover open: Manual massage









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## 3 Massage range (movement range of massage wheels)

**TOP PREVIOUS NEXT** 

3.1 Upward massage, Downward massage, Rolling massage, Regional rolling massage

3.2 Tapping, Rolling, Regional rolling, Tapping rolling, Regional tapping rolling

•(a)

# 3.1 Upward massage, Downward massage, Rolling massage, Regional rolling massage

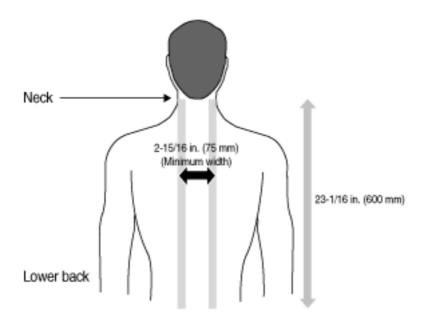
#### TOP PREVIOUS NEXT

Width cannot be adjusted

Neck to waist: width 75mm (minimum)

### Intensity adjustment

Upward and downward massage (from gentle to strong) :45mm-wide adjustability where massage heads push out toward body as intensity increases.Others (from gentle to strong) :15mm-wide adjustability where massage heads push out toward body as intensityincreases.



•(a)

# 3.2 Tapping, Rolling, Regional rolling, Tapping rolling, Regional tapping rolling

## TOP PREVIOUS NEXT

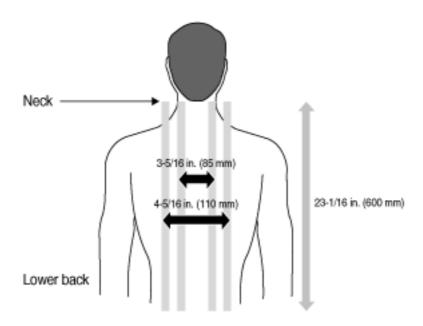
## Width adjustment

Neck to waist: Massage range width: 3-5/16 in. or 4-5/16 in. (85mm or 110mm)

## Intensity adjustment

Tapping: 45mm-wide adjustability where massage heads push out toward body as intensity increases.

Others: 15mm-wide adjustability where massage heads push out toward body as intensity increases.



•(a)

## 4 Components identification

TOP PREVIOUS NEXT

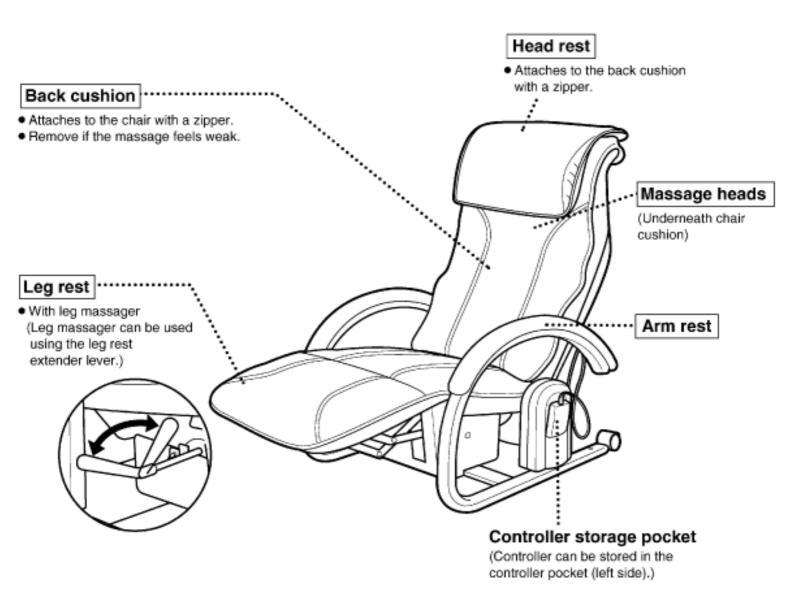
**4.1 PARTS IDENTIFICATION** 

**4.2 TURNING ON THE POWER** 



## 4.1 PARTS IDENTIFICATION

## **TOP PREVIOUS NEXT**



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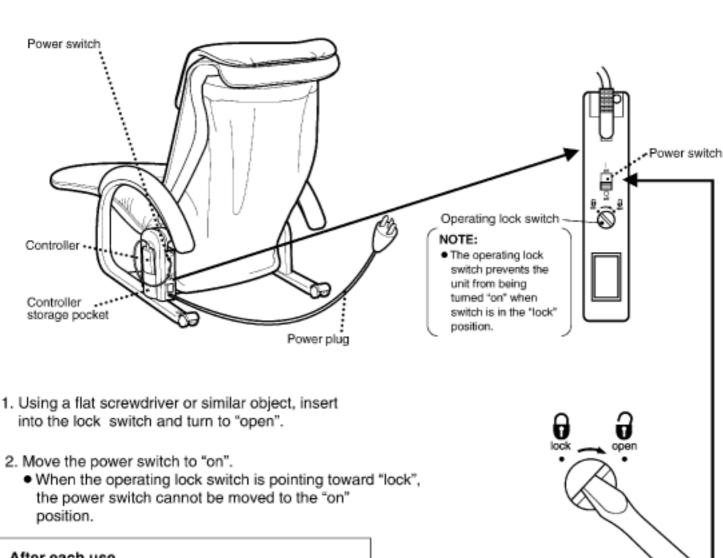
## 4.2 TURNING ON THE POWER

#### TOP PREVIOUS NEXT

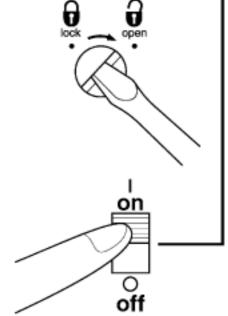
### First read and familiarize yourself with the safety precautions.

 Plug the power cord into the inlet located at the rear of the chair. Plug the power cord into an AC outlet.

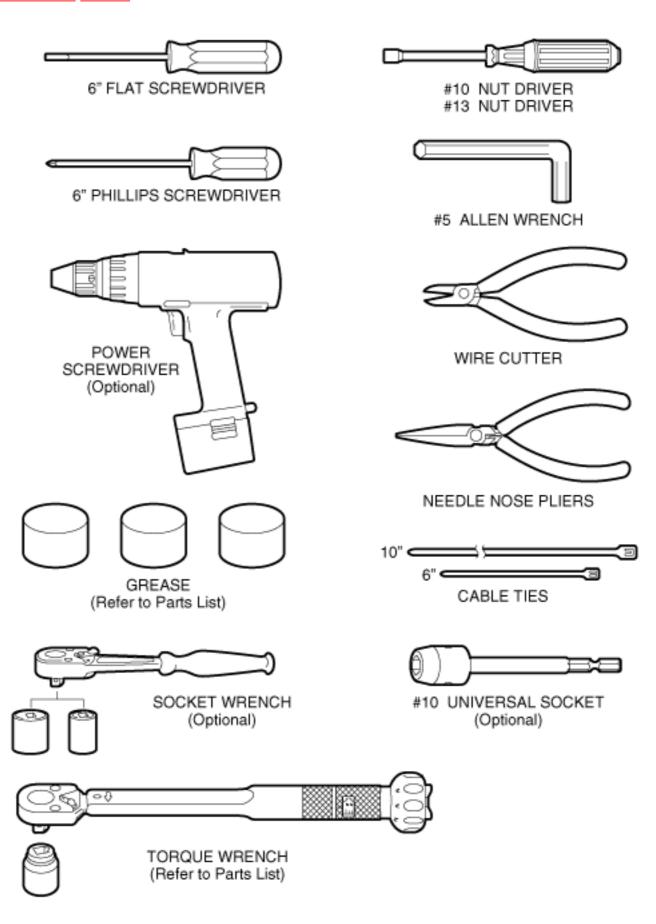
Be careful not to pinch the cord under the leg frames of the chair or any other items.



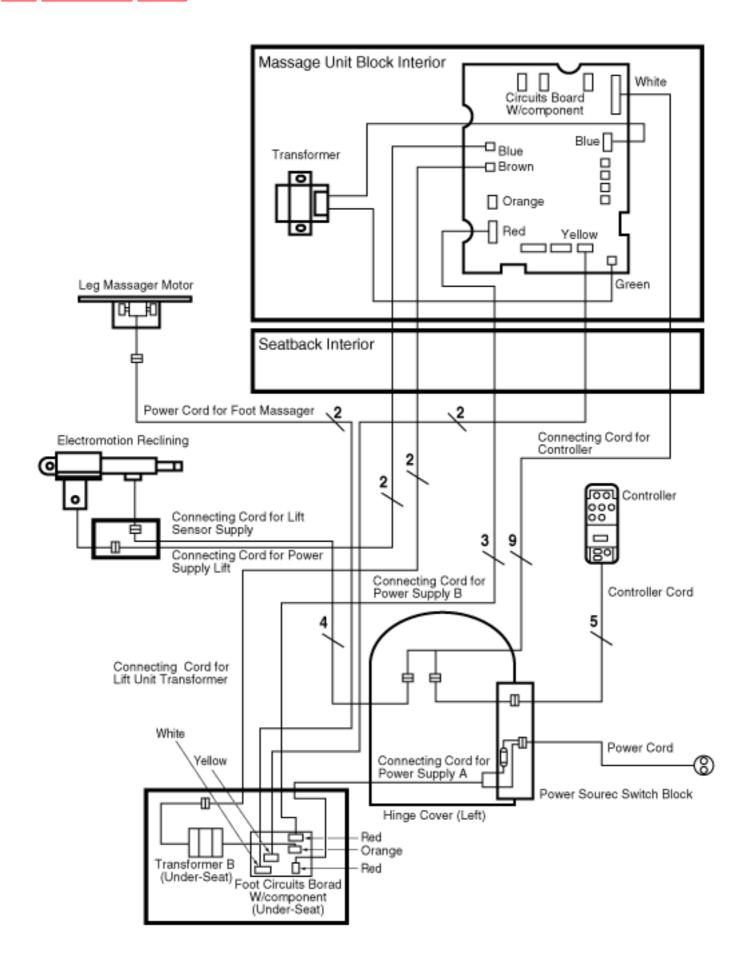
- After each use.
- Be sure to turn the power switch to "off".
- To prevent children from using this unit, safety lock the power switch by moving the operating lock switch to the "lock" position.
- As a further caution, unplug the power cord from the outlet after each use.
- Always keep the key in a safe space.



## **5 Required tools**



## 6 Simplified wiring diagram





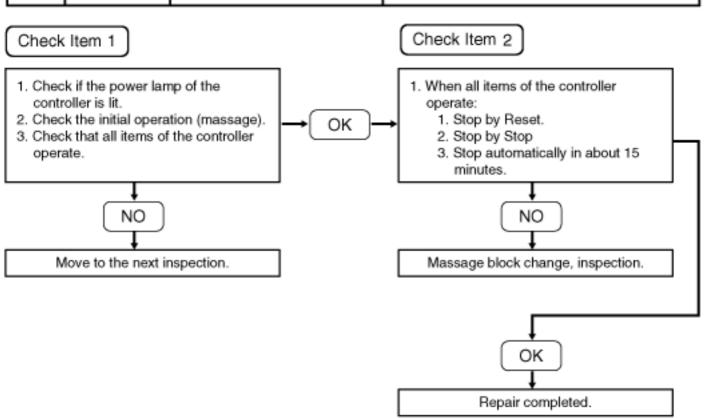
## 7 Electrical system: Inspection summary

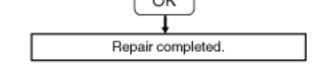
### **TOP PREVIOUS NEXT**

Prior to inspecting/repairing the massage block, please inspect the electrical system.

\*The section entitled "No." below refers to the Parts Number of the Expanded Drawings.

Order	Ref No.	Inspection Item	Inspection Point
1	119	Power Cord (A-2 Plug) Conductivity	While bending the cord, check conductivity.     Check for damage to the cord cover, and for deformation (crushed section, etc.).
2	118	Fuse (125V, 3.0A) Conductivity	Check outward appearance, and conductivity.
3	135	Conductivity of the power connector cord A.	While bending the cord, check conductivity.     Check for damage to the cord cover, and for deformation (crushed section, etc.).
4	158	Change of circuits (under the seat).	1. Connector (red)(CN201) = AC120V
5	1	Conductivity of the power connector cord B.	While bending the cord, check conductivity.     Check for damage to the cord cover, and for deformation (crushed section, etc.).
6	79	Transformer Change	Input = AC120V Output (1)=AC25±1V Output (1)=AC10±1V
7	129	Controller Block Change (perform Check Item 1 and 2)	Check Item 1 Check Item 2
8	10	Main Circuit Board W/Component	Check Item 2





Prior to inspecting/repairing the electromotion reclining, please inspect the electrical system.

\*The section entitled "No." below refers to the Parts Number of the Expanded Drawings.

Order	Ref No.	Inspection Item	Inspection Point
1	119	Power Cord (A-2 Plug) Conductivity	While bending the cord, check conductivity.    Check for damage to the cord cover, and for deformation (crushed section, etc.).
2	118	Fuse (125V, 3.0A) Conductivity	Check outward appearance, and conductivity.
3	135	Conductivity of the connecting cord for power supply A.	While bending the cord, check conductivity.    Check for damage to the cord cover, and for deformation (crushed section, etc.).
4	158	Change of foot circuit board w/component	Input(CN201)=120V Output(CN202,CN203)=AC120V
5	159	Change of transformer B	Input=AC120V Output=AC25±1V
6	5	Conductivity of connecting cord for lift unit transformer.	While bending the cord, check conductivity.     Check for damage to the cord cover, and for deformation (crushed section, etc.).
7	10	Change of main circuit board.	Input(CN101)=AC120V
8	6	Conductivity of connecting cord for power supply lift.	While bending the cord, check conductivity.     Check for damage to the cord cover, and for deformation (crushed section, etc.).
9	128	Change of electromotion reclining.	Input=DC24V

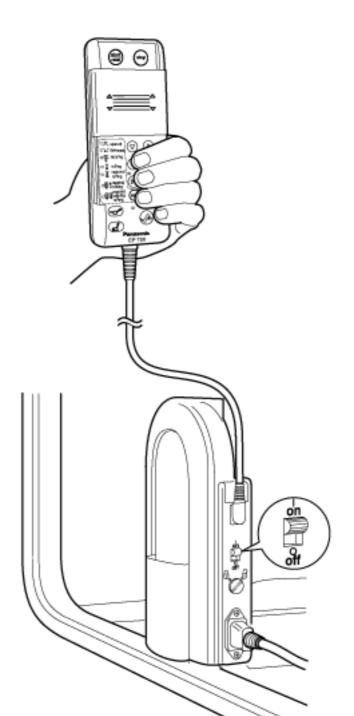
## 8 Display method of massage block total use time and operation time

## **TOP PREVIOUS NEXT**

#### Total use time

While pushing intensity (-) width(narrow) and massage mode programmed operation buttons simultaneously, turn on the power switch and continue to hold the buttons for approximately 5 seconds. Release after the whole back LED lights up. Next, open the cover of the controller to reveal the manual operation side.

\*The manual operation side functions as a time display by pushing any of the manual operation buttons.



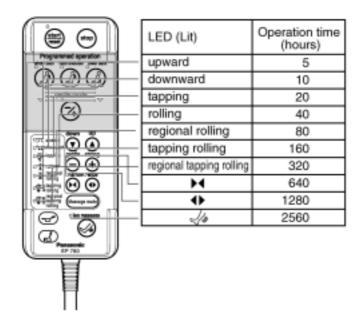


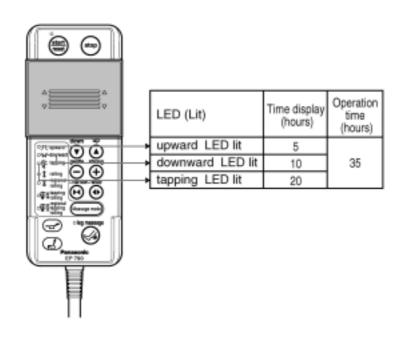
## Display method

Display it by utilizing LEDs of controller.

Unit: 5 hours

Time display of 5 - 5115 hours possible.





# 9 Position of massage wheel during operation, when stopped and when in storage.

### TOP PREVIOUS NEXT

Operation locus Operation or stoppage condition	Massage wheel protrusion quantity	Intensity quantity	
Rolling (Regional Rolling) Tapping Tapping Rolling (Regional Tapping Rolling)	strong	gentle	(1)
stop	strong	gentlest	(2)
start/reset	gentle	gentlest	(3)

- (1) The position can be adjusted in the direction of "gentle".
- (2) The massage wheel stops in the strong position so that the next start is easy.
- (3) The massage wheel stops in the gentle position so as to touch the body as little as possible.
- •Massage position detector P.C.B is composed of 2 bits. The microcomputer of the main circuit board w/component is always being sent the ON/OFF (0V/5V) signal of the drive pipe rotation. With the massage positiondetector P.C.B being 2 bits, the massage position detector P.C.B. is used to detect the timing of the increase/decrease of the intensity. The intensity adjustment block turns on when ON/(5V).
- •Intensity adjustment P.C.B is composed of 3 bits. It detects only intensity quantity, and detects protruding quantity(about 0 to 45 mm).
- \*When dust and dirt get into the detector section of the detector print board, the detection of various operations becomes impossible, and the signals being sent to the main circuit board change. This leads to, for example, a malfunction in the intensity overrun, etc., which results in the blinking of operation lamps, and then stoppage.

## 9.1 Timer

•(a)

## 9.1 Timer

## TOP PREVIOUS NEXT

- •When the start/reset button is pushed, to prevent overuse, a timer begins. After approximately 15 minutes, time expires, and the massage wheel goes into storage.
- •The leg massager is also on a timer to prevent overuse (stops after 30 minutes).

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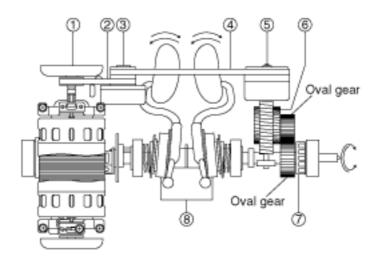
## 10 Power transmission to the drive section.

### **TOP PREVIOUS NEXT**

Each clutch, when ON (only), has an output of DC 24V.

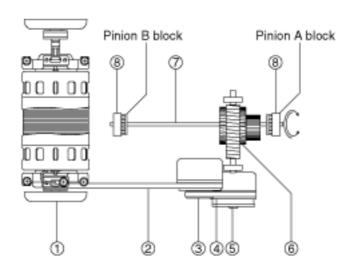
#### massage

1. Motor→ 2. Tapping belt→ 3. Tapping clutch→ 4. Massager belt→ 5. Massage clutch→ 6. Intermediate gear block→ 7. Drive pipe→ 8. Massage wheel block

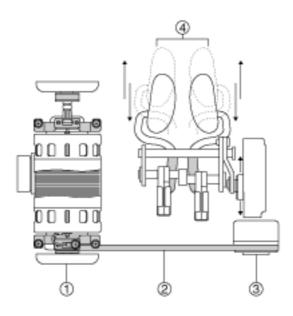


## up/down

1. Motor→ 2. Up/down belt→ 3. Intensity adjustment block→ 4. Intensity adjustment belt→ 5. Up/down clutch→ 6. Up/down gear A→ 7. Up/down shaft→ 8.Pinion A, pinion B

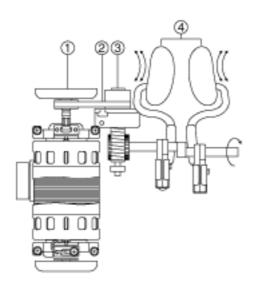


## 1. Motor→ 2. Up/down belt→ 3. Intensity adjustment block→ 4. Massage wheel block



## tapping

1. Motor→ 2. Tapping belt→ 3. Tapping clutch→ 4. Massage wheel block



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## 11 Motion of the clutch and belt based on various massager operations.

## **TOP PREVIOUS NEXT**

## Massager operation and belt motion

Belt Massager operation	Up/down belt	Massage belt	Tapping belt	Intensity adjustment belt	Tapping belt A
Massaging	Idling	0	ldling	Idling	×
Up/down motion	0	0	ldling	Idling	×
Rolling	0	ldling	ldling	Idling	×
Massaging and rolling	0	0	ldling	Idling	×
Tapping	Idling	ldling	0	Idling	0
Tapping and rolling	0	ldling	0	Idling	0
Intensity adjustment	Idling	0	ldling	0	×
Width adjustment	Idling	0	ldling	Idling	×

Power is transmitted to the shaft. X: Power is not transmitted to the shaft.

## Massager operation and clutch motion

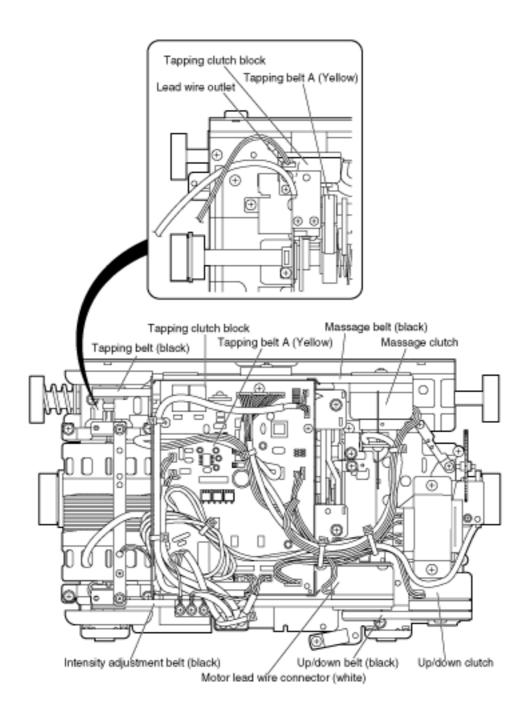
Clutch Massager operation	Up/down clutch	Massage clutch	Tapping clutch	Intensity adjustment clutch
Massaging	×	0	×	×
Up/down motion	0	0	×	×
Rolling	0	×	×	×
Massaging and rolling	0	0	×	×
Tapping	×	×	0	×
Tapping and rolling	0	×	0	×
Intensity adjustment	×	0	×	0
Width adjustment	×	0	×	×

O: Electrically ON X: Electrically OFF

<sup>&</sup>quot;Idling: Although the pulley is rotating, power is not transmitted to the shaft.

<sup>&</sup>quot;The width can be adjusted in two steps only (except for the motions of upward and downward massaging).

<sup>\*</sup>The width can be adjusted in two steps only (except for the motions of upward and downward massaging).





## 12 Massager up/down detection gear adjustment method

### **TOP PREVIOUS NEXT**

When the massager is removed from the chair, the position of the up/down detection gear changes, resulting in a change of the up/down stop position.

When installing the massager on the back frame, be sure to adjust the position with the up/down detection gear.

• Up/down detection gear position adjustment procedure

To make an adjustment, refer to the massager removing method (the back frame is tilted from the chair).

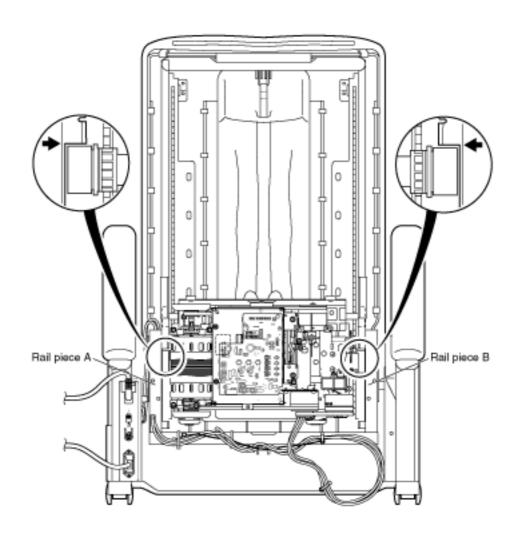
- 1. Before mounting, the massager on the back frame must be moved down to the lowest position by setting the controller manual operation UP/DOWN button to DOWN.
- 2. Mount the massager on the lowest position of the back frame.
- 3. Turn the hex nut M6 counterclockwise and move the massager upward.
- 4. Make sure that the massager has been mounted horizontally by moving the massager to the position shown in the Figure.
  - \*Unless the massager has been mounted horizontally, an abnormal sound or problem may occur.
- 5. Move it up to the highest position(until the massager stops) by setting the controller manual operation UP/DOWN button to UP.
- 6. Peeping into the square hole of the back frame, check the position of the massager to adjust.
  - \*One thread of the up/down detection gear gives a stroke change of 4mm.

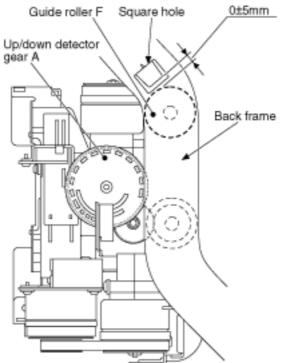
When the massager has been raised excessively: Turn the up/down detection gear clockwise to adjust.

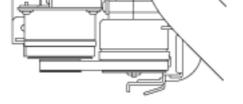
When the massager has been lowered excessively: Turn the up/down detection gear counterclockwise to adjust.

While adjusting the distance between the square hole and guide roller F to 0±5mm, check by using the up/down adjustment button found on the manual operation panel of the controller.

- 7. Install the rail piece A and B, and tighten uniformly the set screws K3-6 (left and right, 3 pcs. each).
- 8. Using the manual operation of the controller, conduct the rolling operation. Set the massage heads adjustment switch to level 1, and check the up/down stroke.







Massage block



## 13 Removing the massage block

TOP PREVIOUS NEXT

13.1 Removing the rear cover

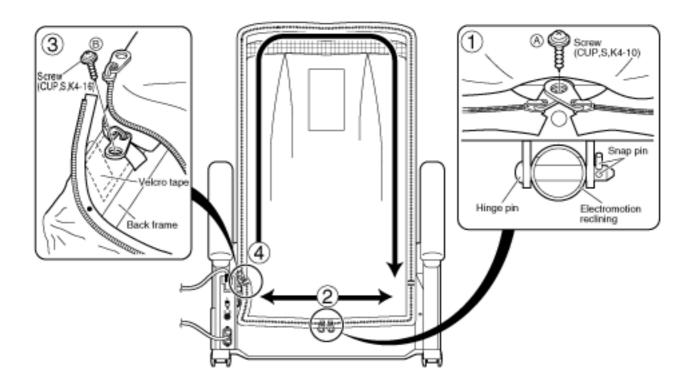
13.2 Removing the massager

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# 13.1 Removing the rear cover

#### TOP PREVIOUS NEXT

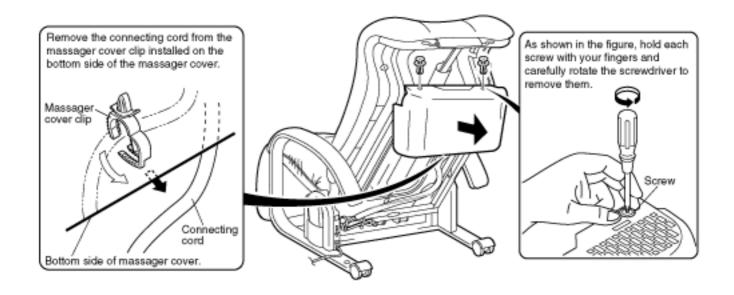
- 1. Remove the fastener screw of the rear cover (bottom-middle) (Cup, S, K4-10).
- 2. Pressing down the left and right side of lower part of rear cover (the plastic cover is provided inside the ckoth), pull it to this side to remove the rear cover.

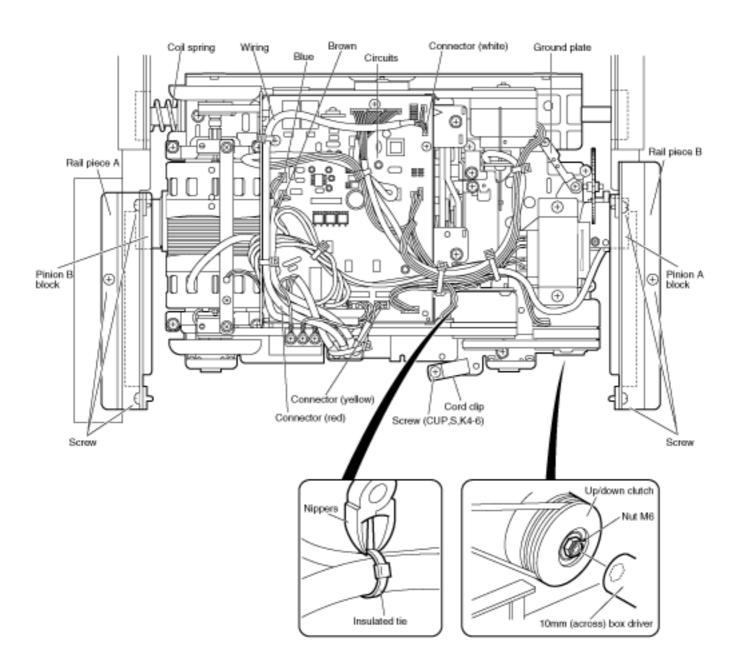


•(a)

### 13.2 Removing the massager

- 1. Remove the two installation screws from the massager cover, and take off the cover.
- 2. Push down the seatback to the front part.
  - •Inspection and repair are done after placing the chair as explained in 1. and 2. above.
- 3. Remove the rail piece set screws (K4-6), 3 pieces (left and right) shown in Figure 9, and remove the rail pieces A and B.
- 4. When the massager moves up and down (normally), move it down to the lowest position by setting the controller manual operation up/down button to "DOWN", and then turn clockwise the up/down clutch hex nut M6 (see Figure 9) tomove to the position where the Pinion A and B block is visible from the back frame
  - \*When the massager fails to move up and down, turn clockwise the hex nut M6 of up/down clutch.
  - (The massager can be moved by attaching the hex socketø10 (for nut 6 mm) to a rechargeable drill driver.)
- 5. Remove the three connectors (red, yellow, white, blue, brown) of the power connecting cord connected to the massager, remove one screw (K4-6) fixing the massager side cord clip, and remove the power connecting cord from the massager.
- 6. In this state the massager can be taken out.





# 14 Connecting cord for power supply Connecting cord for controller Power cord relay for leg massage

**TOP PREVIOUS NEXT** 

14.1 Cord arrangement of the connecting cord for power supply, connecting cord for controller and power cord relay for leg massage.



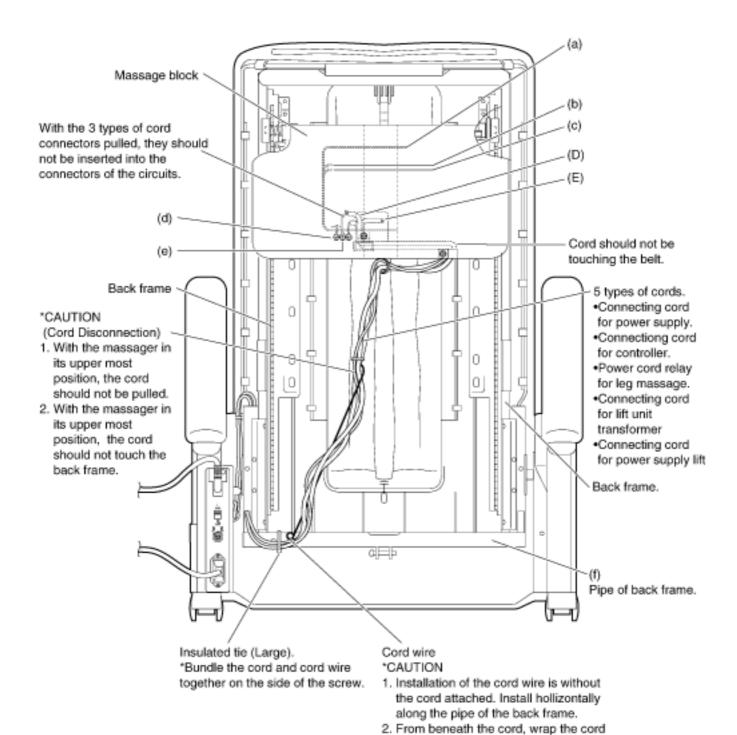
# 14.1 Cord arrangement of the connecting cord for power supply, connecting cord for controller and power cord relay for leg massage.

#### **TOP PREVIOUS NEXT**

- \*The three types of wires are to be arranged with the massage block set in its upper most position (in respect to the chair).
  - 1. et the 5 types of connectors, (a), (b), and (c), (D), (E) in the circuitry of the massage block.
  - 2. Install the ground wires (d) and (e).
  - 3. Arrange the wires in the cord guides so that they do not lift out, then fix the cords using the metal fasteners.
  - 4. Install the massage block cover, and attach the cord using the massage block cover clips.
  - 5. Wind the cord around the chair-side cord wire one time.
  - 6. Attach the cord to the side surface of the frame (f) using an insulated tie.
  - 7. Band the cord together in the positions shown in the photo with insulated ties.

#### \*Caution during installation.

- •Put the massage block at its upper most point.
- •Do not allow the cord to ride on top of the frame (f).



one time around the cord wire.

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# 15 Disassembly (massager) and assembly

#### **TOP PREVIOUS NEXT**

The disassembly steps 1 - 5 can be done without removing the massager from the chair (please work with the connector cord removed).

- 15.1 Removing the intensity adjustment unit.
- 15.2 Removing the motor
- 15.3 Removing the tapping shaft assembly
- 15.4 Removing the tapping clutch
- 15.4.1 Assembling the tapping clutch
- 15.4.2 Assembling Procedure
- 15.4.3 Instructions when assembling
- 15.5 Removing the gear box
- 15.6 Removing and mounting the up/down shaft bolt
- 15.6.1 Removing
- **15.6.2 Mounting**
- 15.7 Assembling
- 15.7.1 Assembling the oval gear
- 15.8 Removing the right and left arms
- 15.9 Construction: Electrical reclining (leg rest link)
- 15.10 Points regarding disassembly (exterior) and assembly

15.10.1 Seat and leg rest removal
15.10.2 Removing the under-seat circuits
15.10.3 Removal of electric lift unit
15.10.4 Points regarding assembly of the electrical lift unit
15.10.5 Removing the connector link
15.10.6 Points regarding connector link assembly
15.10.7 Points regarding fastening seat part lead wires (cords)
•@

# 15.1 Removing the intensity adjustment unit.

#### **TOP PREVIOUS NEXT**

- 1. Cut off the insulated tie (medium) bundling the lead wire and gear box side sensor and the insulated tie (small) bundling the lead wire of intensity sensor with the aid of a nipper.
- 2. Remove the up/down belt and intensity adjustment belt.
- 3. Remove the intensity unit connector (green) and intensity sensor connector (white).
- 4. Remove the intensity sensor set screw A, and remove the intensity sensor.
- 5. Remove the K type stop ring.
- 6. Remove the intensity unit set screws B and C.
- 7. Remove the fitting part, and withdraw.

\*If the intensity sensor has not been removed from the intensity adjustment unit, the intensity adjustment unit cannot be disassembled and assembled.

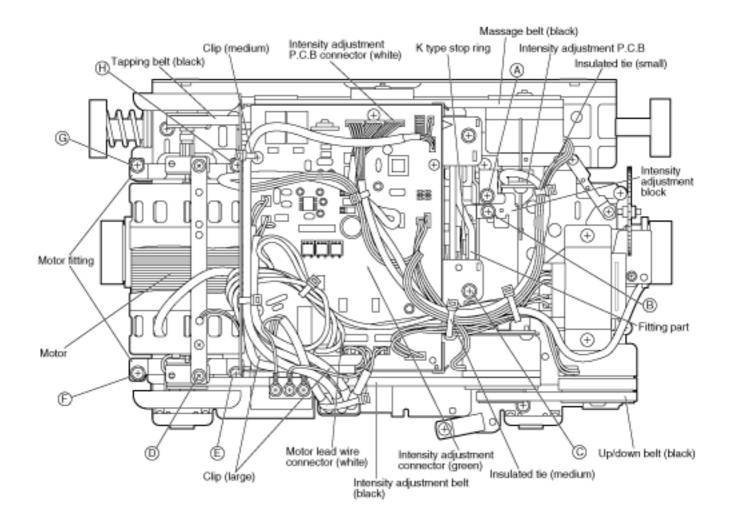
Indication	Type of screw
A~D	Screw (Cup,S,K4-6)
(E)~(H)	Screw (Cup,S,K4-10)

•(a)

### 15.2 Removing the motor

#### **TOP PREVIOUS NEXT**

- 1. Remove the motor lead wire bundle from the clip (large), and remove the motor lead wire connector(white).
- 2. Remove the massage belt, tapping belt and intensity adjustment belt.
- 3. Remove the motor ground wire set screw D
- 4. Remove the motor fitting set screw E to H, and remove the motor.



•(a)

# 15.3 Removing the tapping shaft assembly

#### **TOP PREVIOUS NEXT**

- 1. Cut all the insulated ties bundling each sensor and lead wires with the aid of a nipper, and remove the lead wires bundled to the wire saddles (medium, large).
- 2. Remove all the connectors to the main circuit board.
- 3. Remove the massage belt, tapping belt, up/down belt and intensity adjustment belt.
- 4. Remove the intensity sensor set screw A, and remove the intensity sensor.
- 5. Remove the K type stop ring.
- 6. Remove the intensity adjustment unit set screws B and C.
- 7. Remove the fitting part, and remove the intensity adjustment unit.
- 8. Remove the motor ground wire set screw D.
- 9. Remove the motor fitting set screws E to H, and remove the motor.
- 10. Remove the shield panel (fitted to the circuit) set screw and idler pulley set screws I to M, and remove the shield panel.
- 11. Remove the motor side guide plate set screws N to U, and remove the motor side guide plate.

  When removing the screw Q, take care so that the ground spring is not lost.
- 12. Remove the idler pulley set screws X and Y, and remove the idler pulley.
- 13. Remove the eccentric link holding plate set screws V and W with a spanner, and remove the eccentric link holding plate.
- 14. In this state the tapping shaft assembly can be removed.

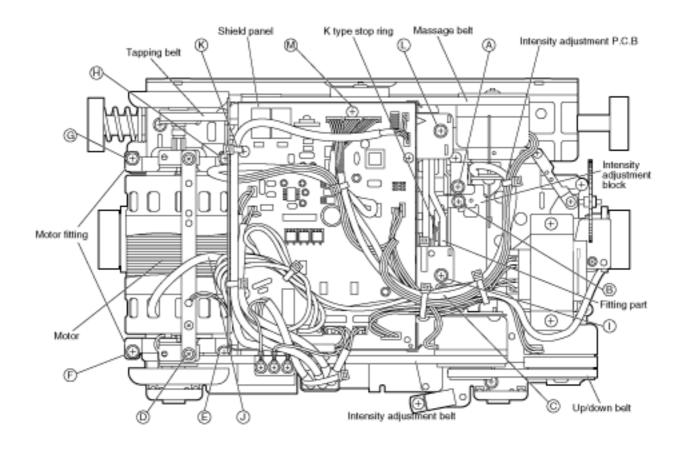
•(a)

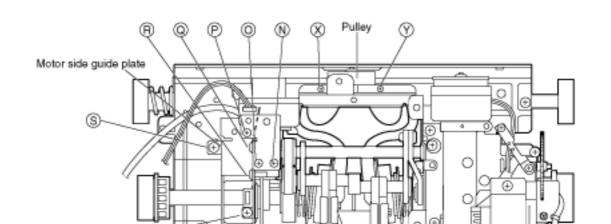
# 15.4 Removing the tapping clutch

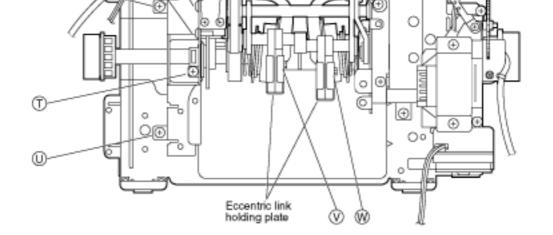
- 1. Perform the removal steps 1 to 12 of 3 Removing the tapping shaft assembly.
- 2. Remove the tapping clutch assembling screw(Bind,TP,B3-20), remove the tapping gear box B, and remove the tapping clutch.

Indication	Type of screw
(A~D) (1~M)	Screw (Cup,S,K4-6)
(E-(H)	Screw (Cup,S,K4-10)

Indication	Type of screw
N-P	Screw (Bind, TP, B4-48)
Q~(B)	Screw (TP,K4-14)
S-U X-Y	Screw (Cup,S,K4-10)
(V)~(W)	Screw (Hex,S,K4-22)







#### 15.4.1 Assembling the tapping clutch

15.4.2 Assembling Procedure

15.4.3 Instructions when assembling

•@

# 15.4.1 Assembling the tapping clutch

#### TOP PREVIOUS NEXT

After removing the tapping clutch from the tapping shaft assembly, assemble them according to the specified procedure.



### 15.4.2 Assembling Procedure

#### TOP PREVIOUS NEXT

#### (see Figures top and middle)

- 1. Fit the tapping gear box side plate to the shaft of tapping shaft assembly.
- 2. Fit the E type stop ring to the shaft.
- 3. Fit the tapping gear box A to the shaft.
- 4. Check the direction of tapping clutch lead wire outlet, and install the tapping clutch.
- 5. Install the tapping gear box B
- 6. Fix with the tapping gear box assembling screw (Bind, TP, B3-20)

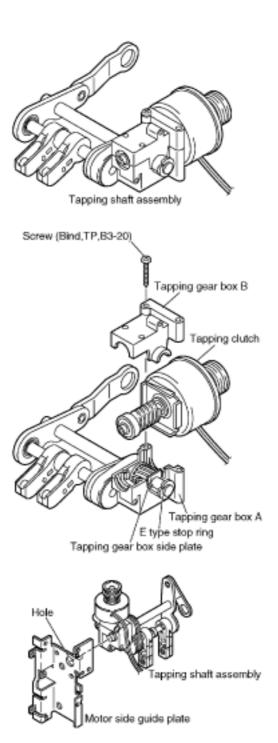
•(a)

# 15.4.3 Instructions when assembling

#### **TOP PREVIOUS NEXT**

(see Figure bottom)

If there is any clearance between the tapping gear boxes A and B, it is impossible to insert into the hole of the motor side guide plate.



### 15.5 Removing the gear box

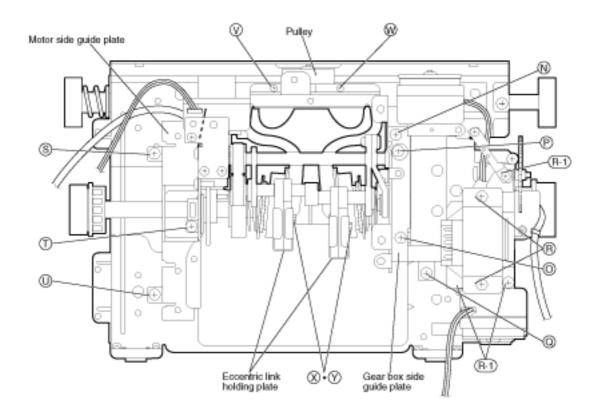
#### **TOP PREVIOUS NEXT**

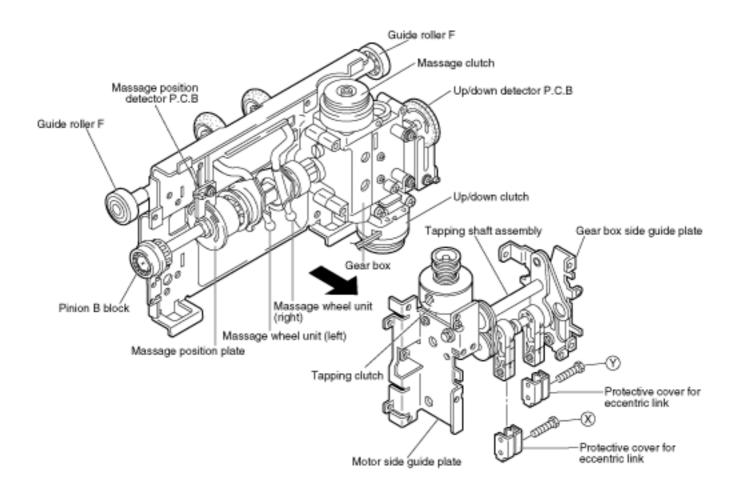
\*The drive pipe, up/down shaft, up/down gear, pinion B block, arm (left, right) and guide roller F cannot be disassembled or assembled if the massager is not dismounted from the chair.

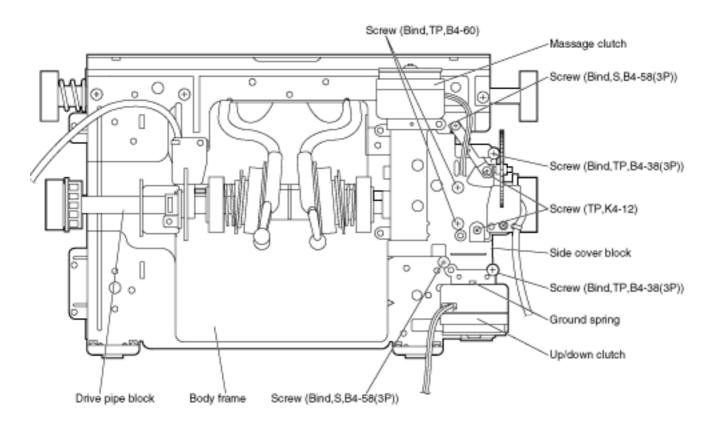
- 1. Perform removal of steps 1 to 10 of "3. Removing the tapping shaft assembly ".
- 2. Remove the gear box side guide plate set screws N and O.
- 3. Remove the transformer set screw R, and remove the transformer and remove the base for transformer set screw R-1, and remove the base for transformer.
- 4. Remove the motor side guide plate set screws S to U.
- 5. Remove the idler pulley set screws V and W, and remove the idler pulley.
- 6. Remove the eccentric link holding plate set screws X and Y with a spanner, and remove the eccentric link holding plate.
- 7. Remove the tapping shaft assembly as one unit, without removing the guide plate for gear box and the guide plate for motor. (see Figure)
- 8. Remove the gear box screws (see Figure)
- 9. After removing the screws, the massage clutch, up/down clutch and intermediate gear block can be removed.
- \*Take care so that the grease does not stick to the massage clutch and up/down clutch pulleys. If grease sticks, remove it with alcohol.
- \*The massage clutch and up/down clutch have similar shapes. The lead wires are the same gray color, so please choose based on connector color.

Massage clutch connector color: White Up/down clutch connector color: Red

Indication	Type of screw
P-Q	Screw (Hex,S,K4-10)
(R)	Screw (TP,K4-14)
(N)~(O)	Screw (Bind, TP, B4-38)
S~W	Screw (Cup,S,K4-10)
(X)~(Y)	Screw (Hex,S,K4-22)







# 15.6 Removing and mounting the up/down shaft bolt

#### TOP PREVIOUS NEXT

\*1. To remove the up/down shaft bolt, the box driver (Ø13 mm) must be used. To install, the torque wrench withØ13 mm must be used.

\*2. The torque wrench withØ13 mm socket and the box driver (Ø13 mm) are available as parts.

Order Parts No. Torque wrench for up/down shaft bolt : WEP000S8857

Box driver for up/down shaft

: WEP000S8867



**15.6.1 Removing** 

15.6.2 Mounting

•(a)

# 15.6.1 Removing

#### TOP PREVIOUS NEXT

The pinion A and pinion B of massager block (left, right) are secured with the up/down shaft bolts.

Remove them with the box driver (Ø13 mm).

(It is possible to use the Phillips head screwdriver. But it may deform the screw head. Therefore, it is necessary to use the box driver.)



### **15.6.2 Mounting**

#### TOP PREVIOUS NEXT

•It is necessary to control the tightening torque of the up/down shaft bolt.Up/down bolt tightening torque: 4 N/m (40 kgf-cm).

\*If the up/down shaft bolt has been insufficiently tightened, it may loosen when the massager moves up and down, and the massager may detach from the chair.

If the up/down shaft bolt has been excessively tightened, the bolt head may shear.

Tighten the up/down shaft bolt of pinion A and pinion B, while controlling the torque.

•(a)

# 15.7 Assembling

TOP PREVIOUS NEXT

15.7.1 Assembling the oval gear

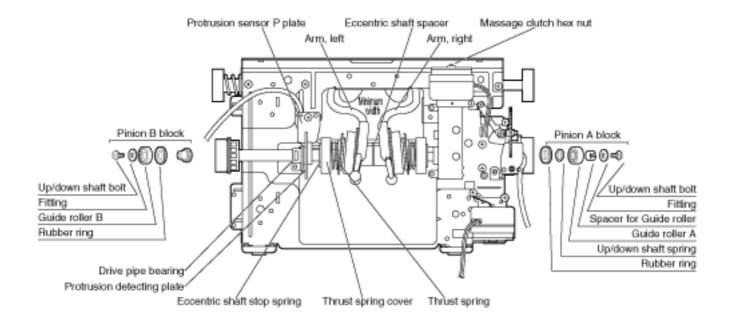


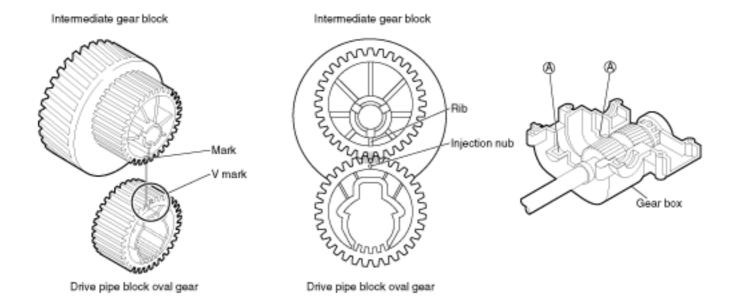
### 15.7.1 Assembling the oval gear

#### **TOP PREVIOUS NEXT**

- 1. Put a V mark on the side of the oval gear of drive pipe block as shown in the left Figure.
- 2. Put a mark as shown in the left Figure on the side of the oval gear of intermediate gear block.
- 3. Arrange aside the V mark of oval gear of drive pipe block, and assemble in the gear box.
- 4. Alinging the mark of oval gear of intermediate gear block with the V mark of oval gear of drive pipe block as shown in the center Figure, insert the intermediate shaft of intermediate gear block into the groove A of gear box.

\*When aligning the drive pipe block oval gear and intermediate gear block, smooth rotation will not be possible even if the alignment is off by just one tooth. During rotation, the gears will not match up, and may cause the massager tolock. Please align the gears correctly.







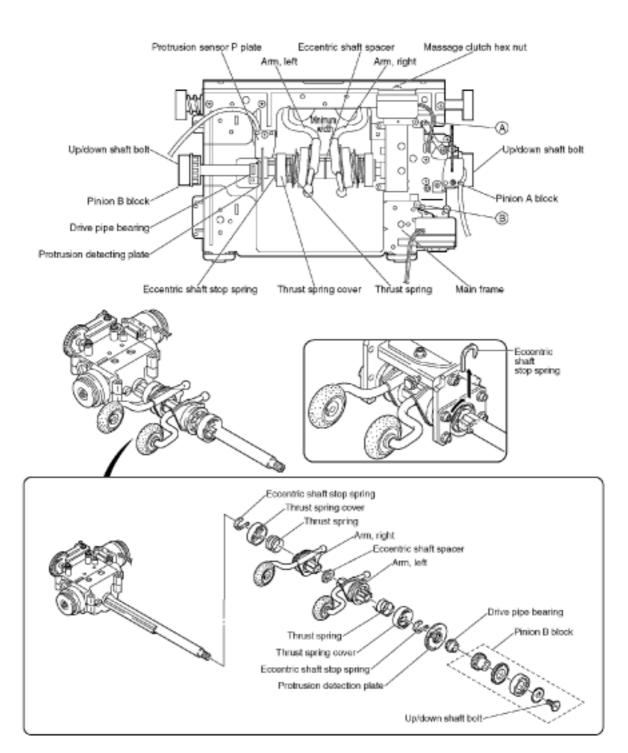
# 15.8 Removing the right and left arms

#### **TOP PREVIOUS NEXT**

(Remove the massager from the chair before beginning the following procedure.)

- 1. Perform steps 1 to 7 in section, "5. Removing the gear box."
- 2. Remove screws A and B which connect the gear box and main frame, and remove the main frame. (When removing the main frame, turn the massage clutch hex nut so that the massage width is at its minimum.)
- 3. Remove the up/down shaft bolt of the pinion B block with the box driver, and remove the pinion B block.
- 4. Remove the drive pipe bearing, and remove the protrusion detecting plate. (Take care not to break the protrusion detecting plate.)
- 5. Using the massage wheel block removing tool, grasp the thrust spring cover and remove the eccentric shaft stop spring. Next, remove the thrust spring cover and thrust spring, and then remove the arm (right), eccentric shaft spacer, and arm(left). Please note that disassembly is possible even without the massage wheel block removing tool.

Indication	Type of screw
(A)~(B)	Screw B4-58 (3P)

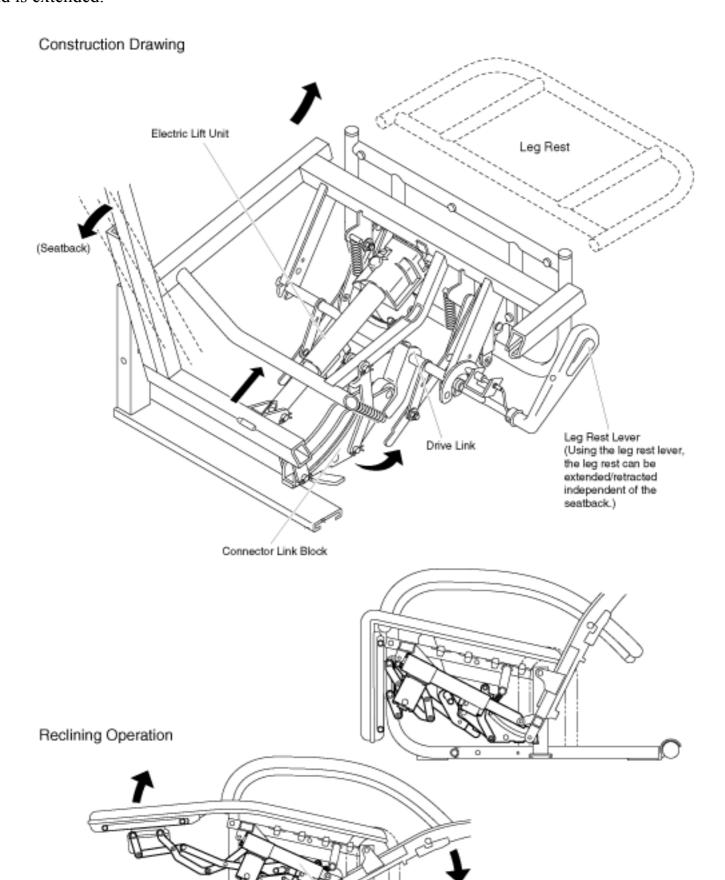


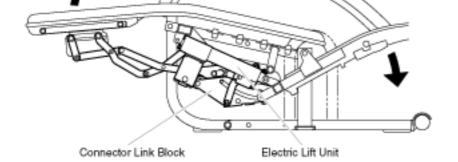
#### •(a)

# 15.9 Construction: Electrical reclining (leg rest link)

#### **TOP PREVIOUS NEXT**

Construction is such that during electric reclining, when the seatback is lowered, the leg rest is linked and is extended.







# 15.10 Points regarding disassembly (exterior) and assembly

**TOP PREVIOUS NEXT** 

15.10.1 Seat and leg rest removal

15.10.2 Removing the under-seat circuits

15.10.3 Removal of electric lift unit

15.10.4 Points regarding assembly of the electrical lift unit

15.10.5 Removing the connector link

15.10.6 Points regarding connector link assembly

15.10.7 Points regarding fastening seat part lead wires (cords)



# 15.10.5 Removing the connector link

#### **TOP PREVIOUS NEXT**

Perform items 1-3 as directed in "3. Removal of Electric Lift Unit."

Remove the snap pin (small) of the connector link that links to the back frame, and the hinge pin of the connector link.

Remove the snap pins (left/right) of the guide link that links to the under-pipe.

Please take care not to lose the polyethylene washer (t=1.6).

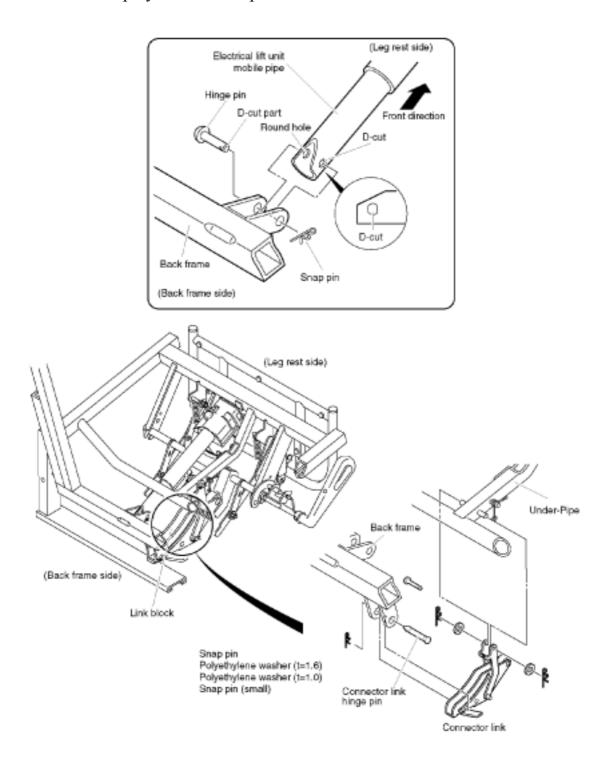
•a

# 15.10.6 Points regarding connector link assembly

#### **TOP PREVIOUS NEXT**

When installing, install the polyethylene washers.

\*There is some amount of play in the drive part of the recliner.

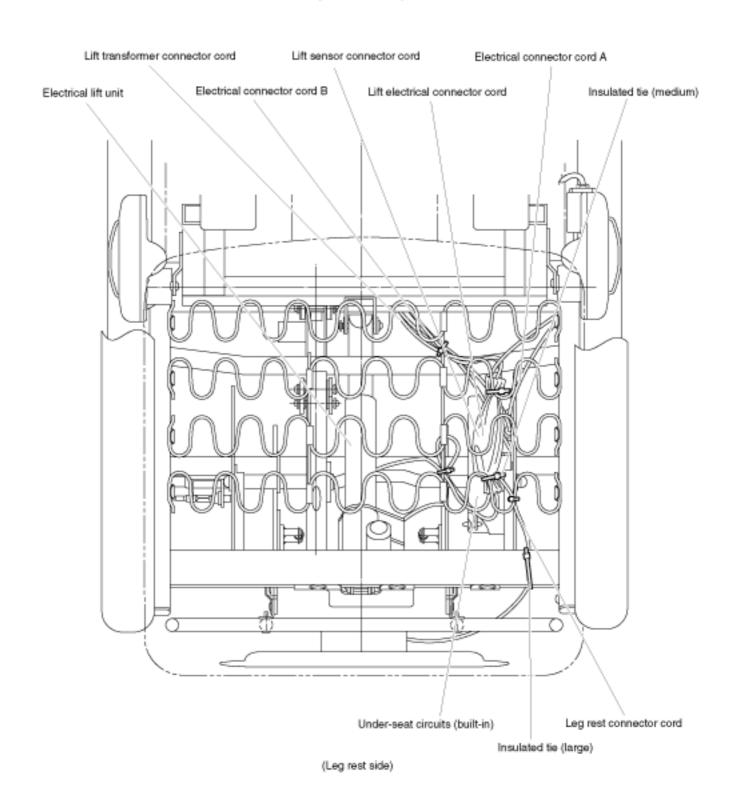


# 15.10.7 Points regarding fastening seat part lead wires (cords)

#### **TOP PREVIOUS NEXT**

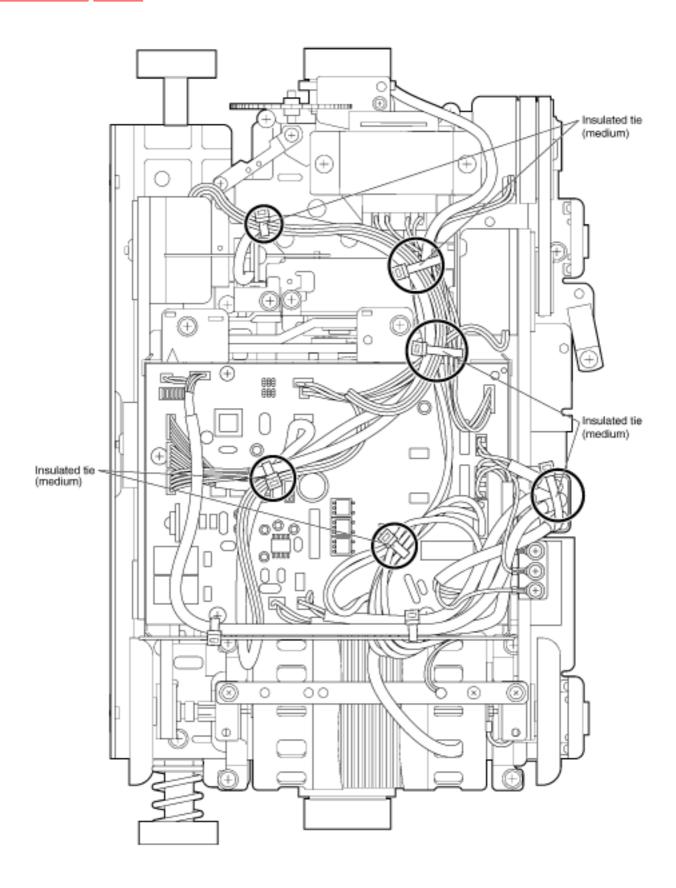
Each lead wire should be fastened with insulated ties.

(Back frame side)

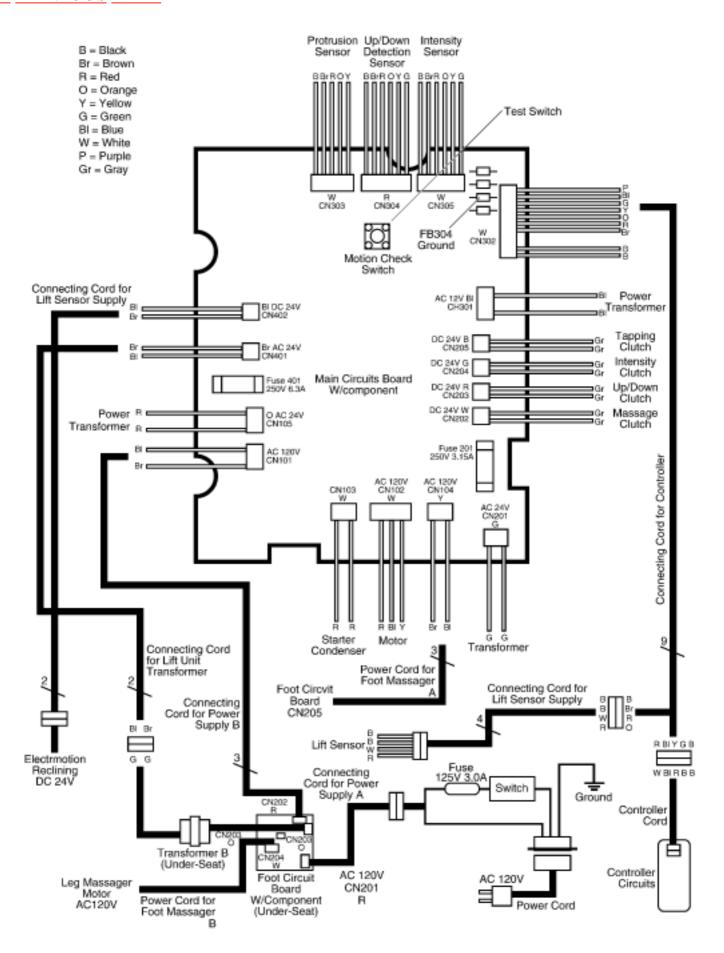




# 16 Arranging massage block lead wires



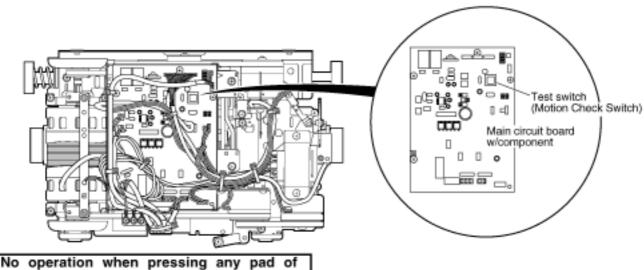
## 17 Actual wiring diagram





## 18 Trouble shooting

#### TOP PREVIOUS NEXT



controller.

Check the massage block operation.

Press the test switch of the main circuit board, and check the massage block operation.

- Operation test method
- 1. Turn on the power switch.
- Press the stop switch to turn off.
- Press the test switch for more than 1 second.
- Caution

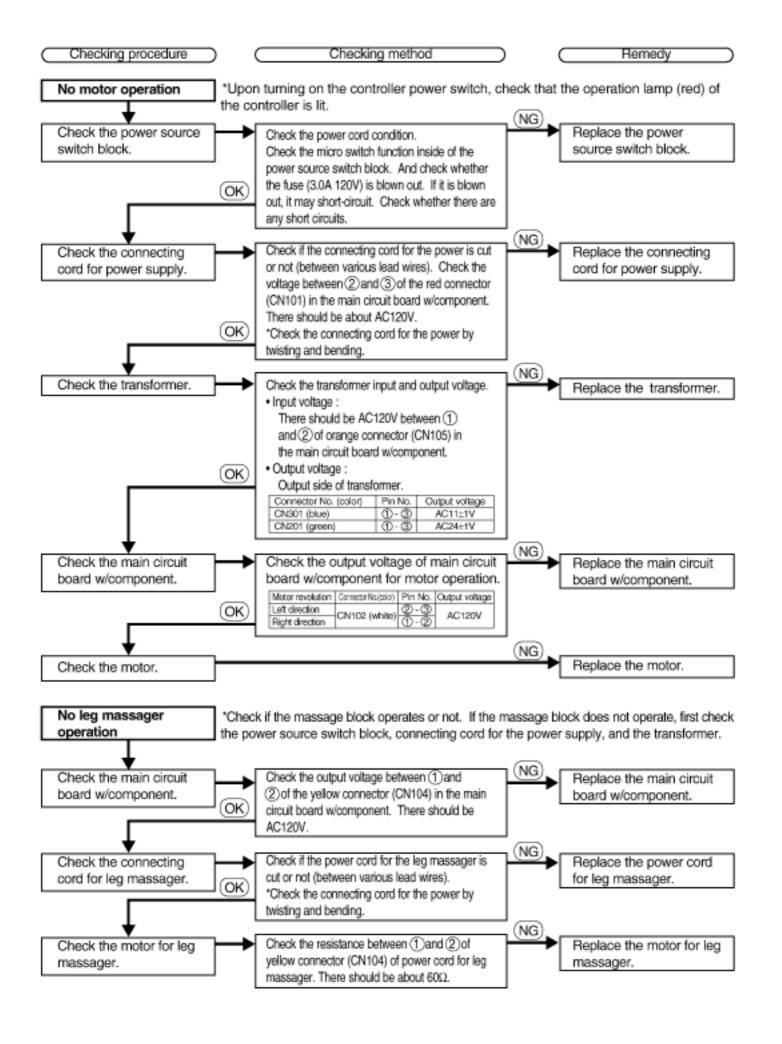
When returning to normal operation, turn off the power switch and check that the controller lamp turned off. Then turn the power switch on again. · Contents of test operation

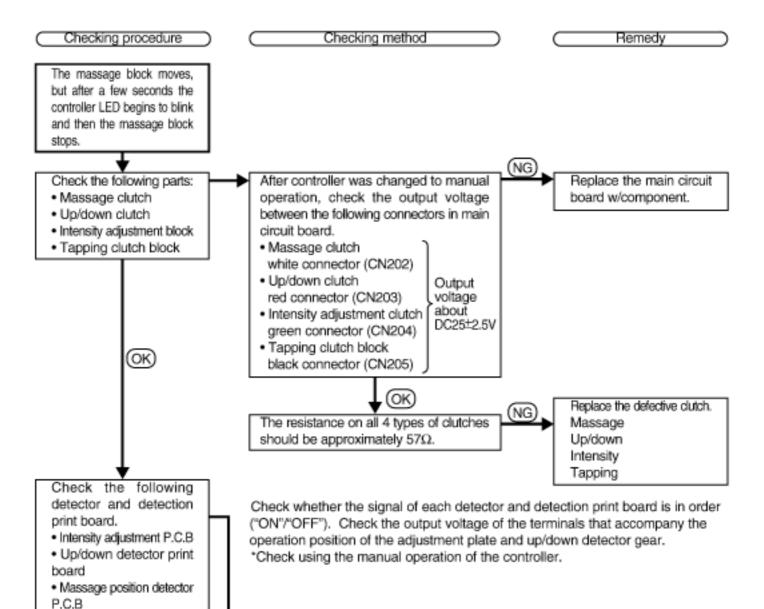
- [1] Position the massage wheel to the weakest position.
- [2] Move the massage block to the center of the up/down stroke.
- [3] Massage upward 3 times.
- [4] Start rolling up.
- [5] Stop at back position and position the massage wheel to the strongest and the weakest position.
- [6] Start tapping rolling up to the selected shoulder position and turn down.
- [7] Move down to the lowest position and turn up.
- [8] Move the massage block up to the center of the up/down stroke under massage rolling mode.
- [9] Move to reset position.

\*Reset position means that the massage wheel stops at weakest and widest position.



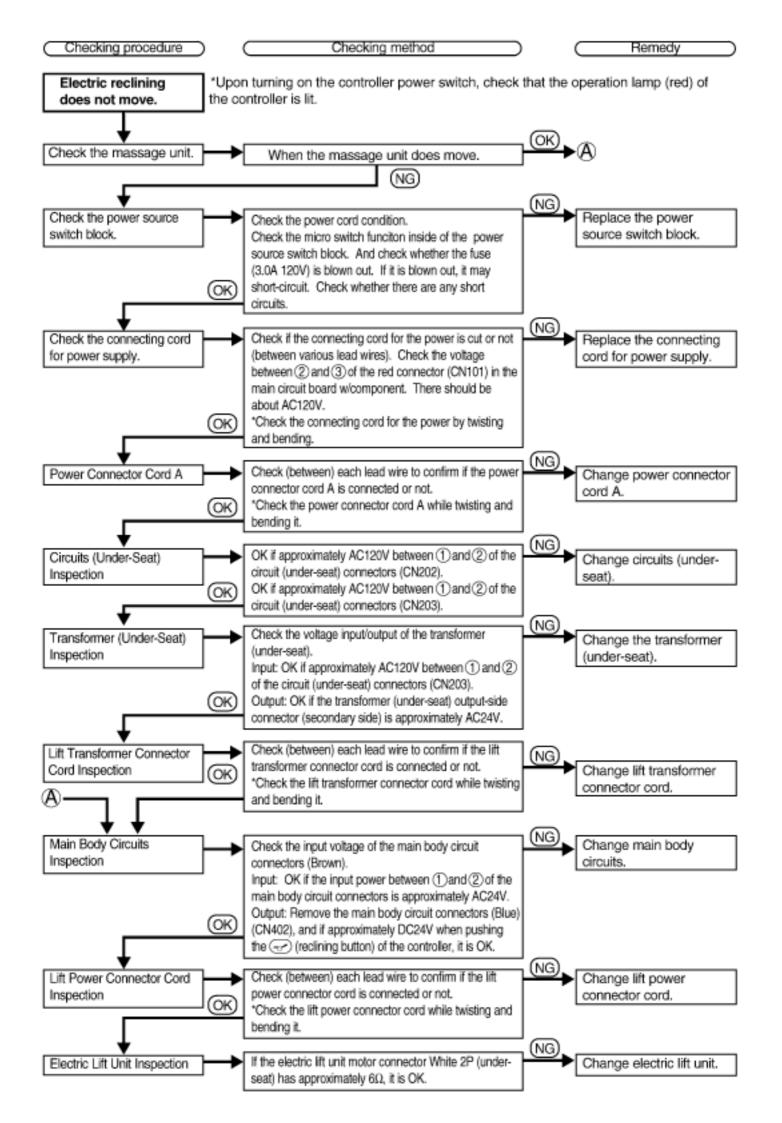
- If a problem remains even after completing all operations, it is possible that the problem is with the connecting cord for the controller (disconnected), controller cord (disconnected), or with the controller itself.
- In the case of a problem with one of the clutches or detectors, if during operations [1] ~ [9], if one operation
  continues and does not move on to the next operation, in the case of a operation other than kneading, the
  operation will exceed its limit and will lock. Check parts related to the operation in which the lock occurred, or in
  the proceeding operation. In the case of locking during kneading, the locked state will repeat.

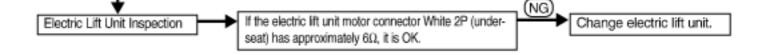




	<del>-</del>					
Detector and detection print board	Detector measurement terminal  — G  Pin No. Lead wire color Ground	Output voltage of the detector and detection print board (DC)				
Massage position		Massage wheel protrusion (Max.)	Massage wheel protrusion (Min.)			
detector P.C.B	Detector (CN303) [1] 4 orange- @	0V	5V			
	Detector (CN303) [2] (5) yellow-(6)	5V	0V			
Up/down detector		Massage block (Top)	Massage block (Bottom)			
	Detector (CN304) [1] 4 orange-6	5V	5V			
	Detector (CN304) [2] (5) yellow-(G)	5V	0V			
	Detector (CN304) [3] 6 green-G	5V	0V			
Intensity adjustment		Massage wheel (Strong)	Massage wheel (Gentle)			
P.C.B	Detector (CN305) [1] 4 orange-@	5V	0V			
	Detector (CN305) [2] (5) yellow-(G)	5V	0V			
	Detector (CN305) [3] 6 green-G	0V	0V			

Replace detector and detection print board.





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# 19 Other

TOP PREVIOUS NEXT

19.1 Grease use

19.2 Examination after inspection and repairing

<u>19.3 Q&A</u>

19.4 Instructions for trouble shooting in response to a customer's claim.



## 19.1 Grease use

## TOP PREVIOUS NEXT

Please grease during each repair.

Acceptable Grease

- •Alvania RA (light brown)
- Molycoat (white)
- •E paste (yellow)
- •YM103 (yellow)

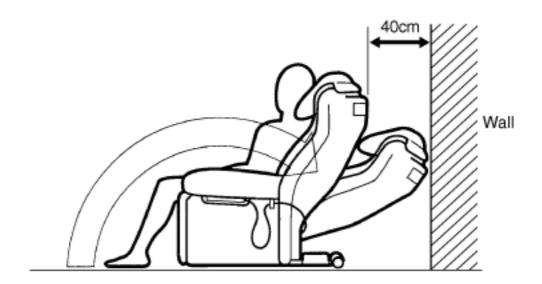
Ref. number	Parts name	Grease	Part No.	
52	Up/down gear, up/down worm wheel	Alvania RA	WEPGP1	
71, 72	Guide roller F, coupling bar	Alvallia NA	WEFGFI	
46	Intermediate gear shaft			
50	Drive pipe	]		
51	Up/down shaft	Molycoat	WEPGP3	
55, 56	Guide rollers A and B	-		
107	Back frame			
20	Tapping clutch worm shaft			
25	Tapping shaft	]		
36	Intensity adjustment worm shaft	E paste	WEPGP5	
46	Intermediate gear	]		
50	Drive pipe (ellipse gear)			
62, 63	Arm steel globe section	YM103	WEP001Y8957	

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# 19.2 Examination after inspection and repairing

### **TOP PREVIOUS NEXT**

- •Check all operations with the massage block operation test switch.
- •Check that the massage block operates using the controller.
- •Check that the massage block operates loaded (i.e. sit in the chair and check).
- •Upon finishing repairs, when placing the chair, make sure that it has enough space to fully recline. There should be more than 40cm between the wall and the chair when in the upright position.



•(a)

# 19.3 Q&A

## TOP PREVIOUS NEXT

	Q	A
1	When operating the chair, there are various strange noises. Is the chair broken?	The massage lounger does several massage functions such as kneading, rolling and tapping. The built-in massager block 10kg makes various sounds, none of which mean there is a problem. These sounds come from the normal mechanical operation. Please check and understand the Operation Manual so that these various sounds can be explained.
2	The demo chair I tried before buying did not make strange noises.	In the case of the demo chair, the noise from the surrounding area in the store was loud enough to prevent you from hearing the normal noises from the chair. At home, the noises are more noticeable as the surrounding area is quite.
3	The massage wheels stop in the middle of operation. Or, the massager block stops and all the controller lamps begin to blink.	So that the massager block can move freely up and down, confirm that there are no obstacles in the rear of the chair, including the wall. Also, if the massage wheels encounter a strong counter force, they are designed to stop. The motion of the massage wheels (drive pipe rotation) is checked by the micro computer. If the signal of the drive pipe rotation stops for more than 5 seconds, all the LED on the controller will blink and the massager block with stop.  If the massage wheels stop, and all the lamps on the controller begin to blink, push the ON/OFF button to restart the controller. A load of more than 120kg should be avoided, as the massager block is designed to stop automatically when overloaded.

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# 19.4 Instructions for trouble shooting in response to a customer's claim.

### **TOP PREVIOUS NEXT**

(See regarding Grease use .)

П	Customer's claim	Remedy
1	A squeaking sound between the drive pipe and the up/down shaft due to over- load stress.	Apply the Molycoat grease to the up/down shaft.
2	A squeaking sound caused by the mas- sage wheel and massage wheel cover rubbing against one another.	Apply silicon spray oil to the whole back of the massage wheel cover.     Apply silicon oil to the massage wheel surface with a cloth soaked in silicon oil.     (If oil is sprayed directly to the massage wheel, it may cause the massage wheel to not work properly.)
3	A squeaking sound from the gears inside the gear box due to a lack of grease.	Apply the E-paste grease to the inside of the gear box.
4	A discrepancy in the position of the massage wheel up/down and front/rear.  Massage Wheel(Left)  Drive Pipe (for Kneeling)  Tapping Sheft (for Tapping)  View from A  Offset 30mm	The massage block has two main functions, kneading and tapping. These functions are operated by a linkage mechanism and are switched by an electrical clutch system. The tapping function is operated by the rotation of the tapping shaft.  This tapping shaft is offset by approximately 30mm on the left and right massage wheels. This tapping shaft will stop at a random position when the massage is functioning. Because of this, the positions of the left and right massage wheels have a maximum discrepancy of 10mm up/down and front/rear.  This is normal, and there is no need to be concerned.

# **20 EXPLODED VIEW**

### TOP PREVIOUS NEXT







# 21 REPLACEMENT PARTS LIST FOR EP790-260

## TOP PREVIOUS

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### RMKS:

\*1Available individually.

\*2 Supplying as set.

Ref. No.	Part No.	Part Name& Description		Remarks	Per Uni
<u>1</u>	WEP790L2989	CONNECTING CORD FOR POWER SUPPLY B			1
<u>2</u>	WEP790L2949	POWER CORD FOR FOOT MASSAGER A			1
<u>3</u>	WEP790L2979	POWER CORD FOR FOOT MASSAGER B			1
<u>4</u>	WEP790L2929	CONNECTING CORD FOR CONTROLLER			1
<u>5</u>	WEP790L2948	CONNECTING CORD FOR LIFT UNIT TRANSFORMER			1
<u>6</u>	WEP790L2958	CONNECTING CORD FOR POWER SUPPLY LIFT			1
7	WEP1010L0598	COVER CLIP			1
8	WEP596L6627	SCREW(CUP.S.K4-6)	*1	for mechanism	5
9	WEP755L6338	SCREW(Cup6ANGLE.K4-10)	*1	for mechanism	20
<u>10</u>	WEP790L2100	MAIN CIRCUIT BOARD W/COMPONENT		,	1
<u>11</u>	WEP755L9778	SCREW(Cup.S.K3-8)	*1	for circuit board	4
<u>12</u>	WEP579L0031	SHIELD PANEL FOR P.C.B			1
<u>13</u>	WEP579L1001	MOTOR			1
<u>14</u>	WEP596L0237	GUIDE PLATE FOR MOTOR		7	1
<u>15</u>	WEP596L1117	TAPPING BELT		7	1
<u>16</u>	WEP596L6087	SCREW(BAIND.TP.B4-48)	*1	for mechanism	3
<u>17</u>	WEP596L9137	SCREW(TP.K4-14)	*1	for mechanism	4
<u>18</u>	WEP596L0187	GROUND SPRING C			1
<u>19</u>	WEP596L1778	TAPPING GEAR BOX AB SET			1
<u>20</u>	WEP579L1490	TAPPING CLUTCH			1
<u>21</u>	WEP755L9537	SCREW(BIND.TP.B3-20)			1
<u>22</u>	WEP569L6857	E TYPE STOP RING			1

24	WEP596L5197 WEP569L1147	PLATE FOR TAPPING GEAR BOX			1
	WEP569L1147				
25	WEISOSEIII	TAPPING BELT A			1
	WEP579L4340	TAPPING SHAFT ASSEMBLY			1
<u>26</u>	WEP596L0208	PRO TEKTITE COVER FOR ECCENTRIC LINK	*1		2
<u>27</u>	WEP596L6328	SCREW(6ANGLE.S.K4-22)	*1	for pro tektite cover	2
28	WEP596L1127	INTENSITY ADJUSTMENT BELT			1
<u>29</u>	WEP569L1397	UP/DOWN DETECTOR GEAR A			1
<u>30</u>	WEP579L1840	SIDE COVER BLOCK			1
<u>31</u>	WEP790L2188	UP/DOWN DETECTOR P.C.B			1
<u>32</u>	WEP596L3417	UP/DOWN BELT			1
<u>33</u>	WEP596L0217	GUIDE PLATE FOR GEAR BOX			1
<u>34</u>	WEP589L6679	SCREW(TP.BH4-38P)	*1	for mechanism	4
<u>35</u>	WEP596L6887	K TYPE STOP RINGÉ15			1
<u>36</u>	WEP755L0508	INTENSITY ADJUSTMENT BLOCK			1
<u>37</u>	WEP755L0467	INTENSITY ADJUSTMENT PLATE			1
38	WEP790L4958	INTENSITY ADJUSTMENT P.C.B			1
<u>39</u>	WEP569L0577	INTENSITY NUT CASE			1
<u>40</u>	WEP790L2389	CAPACITOR			1
41	WEP589L6997	SCREW(TP.BH4-60)	*1	for gear box	2
42	WEP589L6579	SCREW(TP.BH4-58)	*1	for gear box	2
43	WEP760L1797	GEAR BOX B			1
44	WEP579L4840	UP/DOWN CLUTCH			1
<u>45</u>	WEP579L4830	MASSAGE CLUTCH			1
<u>46</u>	WEP570D4637	INTERMEDIATE GEAR BLOCK			1
47	WEP760L0147	PLATE TYPE SPRING			1
48	WEP760L1767	GEAR BOX A			1
<u>49</u>	WEP596L1097	MASSAGE BELT			1
<u>50</u>	WEP578L4357	DRIVE PIPE			1
<u>51</u>	WEP579L0378	UP/DOWN SHAFT			1
<u>52</u>	WEP579L1460	UP/DOWN GEAR			1
<u>53</u>	WEP578A0317	RUBBER RING	*1		2
<u>54</u>	WEP578AL1907	UP/DOWN SHAFT SPRING			1
<u>55</u>	WEP545H1917	GUIDE ROLLER A			1
<u>56</u>	WEP579L0830	SPACER FOR GUIDE ROLLER			1
<u>57</u>	WEP579L3530	FITTUNG	*1		2

<u>58</u>	WEP596L6057	UP/DOWN SHAFT BOLT	*1		2
<u>59</u>	WEP578L0167	FASTENING SPRING FOR SHAFT	*1		2
<u>60</u>	WEP578L0387	SPRING COVER	*1		2
<u>61</u>	WEP578L0197	SPRING	*1		2
<u>62</u>	WEP755L1167	MASSAGE WHEEL UNIT (RIGHT)			1
<u>63</u>	WEP755L1177	MASSAGE WHEEL UNIT (LEFT)			1
<u>64</u>	WEP596L0637	ECCENTRIC SHAFT RING			1
<u>65</u>	WEP755L1187	MASSAGE WHEEL UNIT SET			1
<u>66</u>	WEP545H1937	GUIDE ROLLER B			1
<u>67</u>	WEP579L1440	PINION B BLOCK			1
<u>68</u>	WEP596L0327	PIPE			1
<u>69</u>	WEP569L0458	MASSAGE POSITION PLATE			1
<u>70</u>	WEP790L4948	MASSAGE POSITION DETECTOR P.C.B			1
<u>71</u>	WEP573L1967	GUIDE ROLLER G	*1		2
<u>72</u>	WE596L0287	COUPLING BAR			1
<u>73</u>	WEP579K9578	SCREW (CUP.S.K4-16)	*1	for main frame	4
<u>74</u>	WEP759L0558	MAIN FRAME			1
<u>75</u>	WEP790L0529	MASSAGE MECHANISM COVER			1
<u>76</u>	WEP596K0457	SCREW	*1	for cover	7
<u>77</u>	WEP790L0218	CORD GUIDE PLATE			1
<u>78</u>	WEP579L6638	SCREW(SEMS.K4-8)	*1	for mechanism	2
<u>79</u>	WEP790L2230	TRANSFORMER			1
<u>80</u>	WEP578L0288	BASE FOR TRANSFORMER			1
<u>81</u>	WEP578AL1307	PULLEY			1
<u>82</u>	WEP750L0167	SPRING WASHER GUIDE ROLLER			1
<u>83</u>	WEP760L0187	GROUND PLATE SPRING			1
<u>84</u>	WEP755L4878	DRIVE PIPE ASSEMBLY			1
<u>85</u>	WEP005W8537	INSULATED TIE (MEDIUM T30/SF)			1
<u>86</u>	WEP004W8507	INSULATED TIE (SMALL )			1
<u>87</u>	WEP591L0748	CORD CLIP			1
<u>101</u>	WEP790K3679	HEADREST			1
<u>102</u>	WEP790K3620	BACK CUSHION			1
<u>103</u>	WEP790K3149	MASSAGE WHEEL COVER			1
104	WEP596L9577	CSREW(CUP.S.K4-16)		for rear cover	1

<u>106</u>	WEP790K3689	SEAT			1
<u>107</u>	WEP790L0088	BACK FRAME			1
108	WEP790L0858	CENTER BELT			1
<u>109</u>	WE596L9567	SCREW(CUP.S.K4-10)	*1	for cord wire	4
<u>110</u>	WEP755L0687	CORD WIRE D			1
<u>111</u>	WEP591K0698	RAIL PIECE	*1		2
<u>112</u>	WEP596L9147	SCREW(TP.K4-6)	*1	for rail piece	6
<u>113</u>	WEP755L9687	SCREW(TP.P.T4-16)	*1	for wheel cover	8
<u>114</u>	WEP005W8527	INSULATED TIE (LARGE)	*1		3
<u>115</u>	WEP790K3128	BUSHING COVER			1
<u>116</u>	WEP755K9087	SCREW(TP.K4-14)		for bushing cover	1
<u>117</u>	WEP790K2009	POWER SOURCE SWITCH BLOCK			1
118	WEP790L5278	FUSE(125V 3.0A)			1
<u>119</u>	WEP790K2060	POWER CORD (BLACK)			1
<u>120</u>	WEP790K3158	RIGHT HINGE COVER			1
<u>121</u>	WEP790K3168	LEFT HINGE COVER			1
<u>122</u>	WEP755L0437	CABLE CLIP			1
<u>123</u>	WEP596K9597	SCREW(TP.S.K5-16)	*1	for hinge cover	6
<u>124</u>	WEP760L0907	HINGE PIN	*1		2
<u>125</u>	WEP596L0357	SNAP PIN	*1	for hinge cover	7
<u>126</u>	WEP760L0877	HINGE PIN D			1
<u>127</u>	WEP596K0907	HINGE PIN			1
<u>128</u>	WEP790L1528	ELECTROMOTION RECLINING			1
<u>129</u>	WEP790K4460	CONTROLLER BLOCK			1
<u>130</u>	WEP790K3079	CONTROLLER HOUSING AB SET			1
<u>131</u>	WEP790L2160	CONTROLLER CIRCUIT BOARD W/COMPONENT			1
132	WEP755L9017	SCREW(BAIND.TP.B2-8)	*1	for circuit board	2
133	WEP755K2068	CONTROLLER CORD			1
134	WEP569K9047	SCREW(TP.S3-10)	*1	for controller	2
135	WEP790L2889	CONNECTING CORD FOR POWER SUPPLY A			1
136	WEP752L2977	CONNECTING CORD FOR LIFT SENSOR SUPPLY		,	1
137	WEP790K3938	ARM COVER	*1		2
138	WEP790S3878	RIGHT ARM PIPE		,	1
<u>139</u>	WEP790K3188	CAP	*1	,	2
<u>140</u>	WEP755L6098	CSREW(TP.T5-20)	*1	for arm cover	2

<u>141</u>	WEP596S6747	SCREW(BAIND.S.K4-10)	*1	for cap	2
<u>142</u>	WEP790K3908	CASTOR	*1		2
<u>143</u>	WEP760S9657	SCREW(BAIND.B5-16)	*1	for castor	2
<u>144</u>	WEP578K3377	BOTTOM COVER	*1		4
<u>145</u>	WEP596N9607	SCREW(TP.K4-10)	*1	for bottom cover	4
<u>146</u>	WEP790L3868	LEFT ARM PIPE			1
<u>147</u>	WEP755K3547	CLIP FOR FIXING CONTROLLER CORD			1
<u>148</u>	WEP790L6548	SCREW(TP.3P.M6-10)	*1	for under pipe	8
<u>149</u>	WEP790K0100	UNDER PIPE			1
<u>150</u>	WEP790K0199	UNDER PIPE A			1
<u>151</u>	WEP790K1569	LEG MASSAGER LEVER			1
<u>152</u>	WEP596K6627	SCREW(CUP.S.K4-6)	*1	for drive link	4
<u>153</u>	WEP790L1588	LINKED LINK BLOCK			1
<u>154</u>	WEP596L6997	WASHER	*1	for drive link	8
<u>155</u>	WEP760L0897	LINK HINGE PIN			1
<u>156</u>	WEP760L0347	SNAP PIN(SSP-6)			1
<u>157</u>	WEP596L3747	CHASSIS C COVER			1
<u>158</u>	WEP790L2179	FOOT CIRCUIT BOARD W/COMPONENT			1
<u>159</u>	WEP790L2259	TRANSFORMER B			1
<u>160</u>	WEP579L6638	SCREW(SEMS.M4-8)	*1	for transformer	3
<u>161</u>	WEP790K1548	DRIVE LINK			1
<u>162</u>	WEP790L0398	WASHER B	*1	for drive link	2
<u>163</u>	WEP755K6488	SUPER LOCK NUT M6	*1	for drive link	4
<u>164</u>	WEP596L5207	POLY SLIDER RING A	*1	for drive link	4
<u>165</u>	WEP790K4989	RIGHT LINK PART			1
<u>166</u>	WEP790K4999	LEFT LINK PART			1
<u>167</u>	WEP760K0197	LINK SPRING	*1		2
<u>168</u>	WEP760L9587	SCREW(CUP.K5-20)	*1	for leg	4
<u>169</u>	WEP790L0368	LEG MASSAGER PIPE			1
<u>170</u>	WEP760K3777	LINK COVER			1
<u>171</u>	WEP596K0457	SCREW	*1	for link cover	4
<u>172</u>	WEP790L3668	LEG MASSAGER CUSHION			1
<u>173</u>	WEP790L1238	LEG MASSAGER HOUSING			1
<u>174</u>	WEP790L1019	LEG MASSAGER MOTOR			1
<u>175</u>	WEP750L9087	SCREW(BAIND.M4-14)	*1	for leg motor	6

<u>176</u>	WEP790K9558	SCREW(TP.M4-10)	*1	for seat	2
<u>177</u>	WEP596L9577	SCREW(CUP.S.K4-6)			1
<u>178</u>	WEP755K3467	BUSHING	*1		2
<u>179</u>	WEP004W8507	INSULATED TIM (SMALL)			A few
<u>180</u>	WEP004W8517	INSULATED TIE (MEDIUM)			A few
<u>181</u>	WEP004W8527	INSULATED TIE (LARGE)			A few
<u>182</u>	WEP000S8857	TORQUE WRENCH FOR UP/DOWN SHAFT BOLT			1
<u>183</u>	WEP000S8867	BOX DRIVER FOR UP/DOWN SHAFT BOLT			1
	WEP790K8209	OUTER CARTON			1
	WEP790L8118	INSTRUCTION BOOK LET			1



## TOP PREVIOUS

